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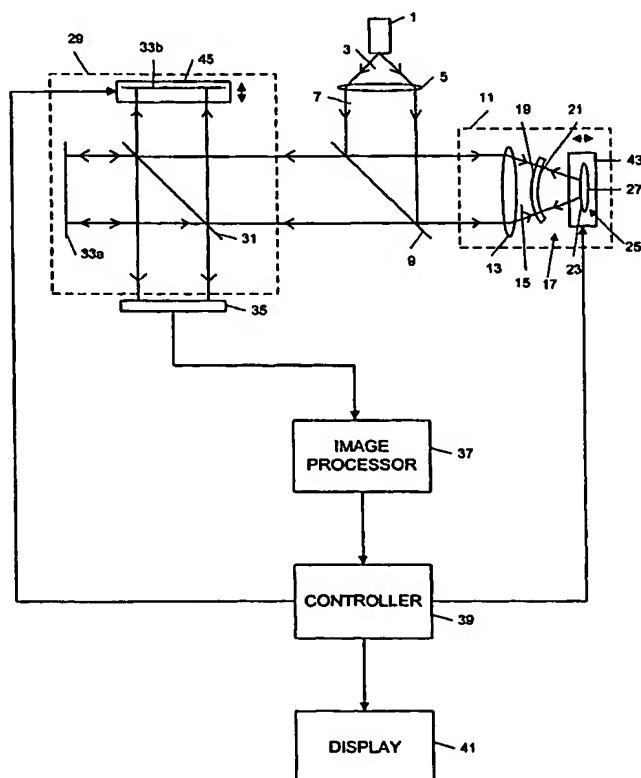
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(54) Title: SURFACE PROFILING METHOD AND APPARATUS



(57) Abstract: There is described a surface profiling apparatus in which light from a broadband light source (1) is directed to an interference zone along first and second light paths, the first light path including the non-planar sample surface (23) and the second light path including a reference surface (21). The light travelling along the first light path comprises a sample light beam having wavefronts which vary along the direction of propagation. The sample surface (23) is moved through the sample light beam so that at different positions of the sample surface along the direction of propagation, different regions of the sample surface (23) substantially match a wavefront of the sample light beam. As this movement of the sample surface (23) causes a variation in the optical path lengths of the first and second light paths, the apparatus includes means for compensating for differences between the optical path lengths so that light from portions of the sample surface (23) which substantially match a wavefront of the sample light beam and light from corresponding portions of the reference surface (21) produce an interference pattern in the interference zone.

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